

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
14 July 2005 (14.07.2005)

PCT

(10) International Publication Number
WO 2005/063971 A3

(51) International Patent Classification⁷: C12N 5/06, 5/08

(21) International Application Number:

PCT/US2004/043696

(22) International Filing Date:

23 December 2004 (23.12.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/532,004	23 December 2003 (23.12.2003)	US
60/586,566	9 July 2004 (09.07.2004)	US
60/587,942	14 July 2004 (14.07.2004)	US

(71) Applicant (for all designated States except US): **NOVO-CELL, INC.** [US/US]; 31 Technology Drive, Suite 100, Irvine, California 92618 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **D'AMOUR, Kevin, Allen** [US/US]; 7235 Caminito Pantoja, San Diego, California 92122 (US). **AGULNICK, Alan, D.** [US/US]; 1259 Stratford Court, San Marcos, California 92069 (US). **BAETGE, Emmanuel, E.** [US/US]; 308 Sunset Drive, Encinitas, California 92024 (US).

(74) Agent: **MALLON, Joseph, J.**; **KNOBBE, MARTENS, OLSON & BEAR, LLP**, 2040 Main Street, 14th Floor, Irvine, California 92614 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

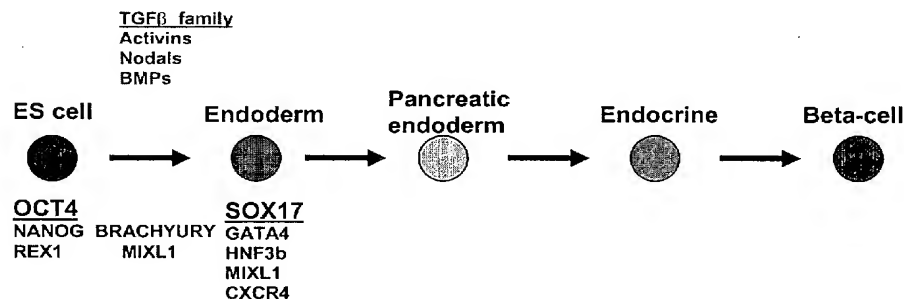
(88) Date of publication of the international search report:

15 December 2005

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: DEFINITIVE ENDODERM

Step-wise β -cell differentiation



(57) Abstract: Disclosed herein are cell cultures comprising definitive endoderm cells and methods of producing the same. Also disclosed herein are cell populations comprising substantially purified definitive endoderm cells as well as methods for enriching, isolating and purifying definitive endoderm cells from other cell types.

WO 2005/063971 A3